

Amendments to the claims:

This listing of claims will replace all prior versions and listings of Claims in the Application:

Listing of Claims:

1-12 (canceled).

13. (Currently Amended) A method of determining a damage threshold for delivering an antiseptic dose to a pathogen in within a periodontal tissue, the method comprising:

- a. measuring a pulsed laser output from a laser source;
- b. irradiating a target with the pulsed laser output, wherein the target comprises the pathogen and a material that is different from the periodontal tissue;
- c. monitoring the pathogen for ablation within the material;
- d. adjusting the pulsed laser output;
- e. repeating steps (a) through (d) to determine an ablation threshold of the pathogen within the target; and
- f. calculating a therapeutic ratio the antiseptic dose of laser radiation for treating the periodontal tissue comprising the pathogen based on a known response of periodontal tissue to the laser output and the ablation threshold of the pathogen within the target; and
- g. irradiating the periodontal tissue with the antiseptic dose of laser radiation, wherein the antiseptic dose eradicates the pathogen within the periodontal tissue with a minimal damage to the periodontal tissue.

14. (Original) The method of claim 13, wherein adjusting the pulsed laser output comprises controlling a distance between a firing end of the laser source and a surface of the target.

15. (Original) The method of claim 13, wherein the pulsed laser output is delivered at a repetition rate corresponding to a photo-acoustic of the target.

16. (Canceled).

- 1 17. (Previously Presented) The method of claim 13, further comprising selecting a treatment  
2 protocol for treating the periodontal tissue that hosts the pathogen based on the  
3 therapeutic ratio.
- 1 18. (Original) The method of claim 13, wherein the pulsed laser output corresponds to a  
2 wavelength in a range of 580 to 1800 nanometers.
- 1 19. (Original) The method of claim 13, wherein irradiating the target with the pulsed laser  
2 output comprises exposing the target through an optical fiber.
- 1 20. (Previously Presented) The method of claim 13, wherein monitoring the pathogen for  
2 ablation comprises scanning an exposed region of the target with an optical scanning  
3 means.
- 1 21. (Canceled).
- 1 22. (Previously Presented) The method of claim 13, wherein monitoring the pathogen for  
2 ablation comprises measuring sound using an audio detector.